

# ElektraLite LED

## Dazer RGB

(Version 2.2).

### USER MANUAL



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## 1. Unpacking

Thank you for choosing the **ElektraLite Dazer RGB** fixture. For your own safety, please read this manual before installing the fixture. This manual covers important information on installation and applications. Please keep this manual for future reference.

To keep this simple, we are going to refer to the fixture as the **ElektraLite Dazer RGB** throughout the manual.

The **ElektraLite Dazer RGB** fixture uses 36 high powered 5 watt leds in a balanced arrangement giving incredible output. Please unpack it carefully and check whether it was damaged in shipping.

The following items should be in the box with the fixture:-

Color/Gel frame

## 2. Safety Instructions.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual. The **ElektraLite Dazer RGB** is a high voltage fixture. Be careful when dealing with high voltages.

**Please read this manual. If you do not read this manual and damages occur to the ElektraLite Dazer RGB, then it could void the warranty.**

During shipping, the **ElektraLite Dazer RGB** may have been exposed to high temperature changes or humidity changes.

So, as a precaution, do not switch the **ElektraLite Dazer RGB** on immediately. Condensation can damage the **ElektraLite Dazer RGB** so leave the **ElektraLite Dazer RGB** switched off until it has reached room temperature. The **ElektraLite Dazer RGB** is an **INDOOR** operational fixture. Do **not** operate this fixture **outdoors** or anywhere there is high **humidity**.

The electric connection must carry out by a qualified person and it is absolutely essential that the **ElektraLite Dazer RGB** be **grounded**. So under no circumstances break off the ground pin on the Edison plug or use the fixture where a ground is not present. A ground pin, like the fuse for the **ElektraLite Dazer RGB** is there for safety.

Always disconnect the **ElektraLite Dazer RGB** from the power source, when the fixture is not in use or before cleaning it.

**ElektraLite Dazer RGB** Never pull out the Edison plug out by just pulling on the power cord itself.

Please keep the **ElektraLite Dazer RGB** away from children and the general public. Please be intelligent and use common sense when operating the **ElektraLite Dazer RGB**.

### 3. General Guidelines.

**ElektraLite Dazer RGB** is a lighting fixture for professional use on stages, in clubs, theatres, churches etc.

**ElektraLite Dazer RGB** should only be operated at between 120 to 240 volts and only indoors.

**ElektraLite Dazer RGB** should not be operated 24/7 (24 hours a day; 7 days a week). **ElektraLite Dazer RGB** needs operation breaks to ensure that it will work for a long time without problems. Please do not shake the **ElektraLite Dazer RGB** and avoid using brute force when installing or operating it.

When choosing the location to install the **ElektraLite Dazer RGB**, please make sure that it is not exposed to extreme heat, moisture or dust and never install it outdoors. Make sure that the fixture has a good amount of free space around it for air flow. Do not install it in a confined space or have insulation around the fixture. The minimum distance between the **ElektraLite Dazer RGB** and the illuminated surface must be more than 3 feet.

Always mount the **ElektraLite Dazer RGB** with an appropriate safety cable.

Operate the **ElektraLite Dazer RGB** only when you are familiar with the features on the fixture. Do not permit operation by persons not qualified.

All modifications to the **ElektraLite Dazer RGB** will invalidate the warranty. There are absolutely no exceptions.

If **ElektraLite Dazer RGB** is operated in any way different to the one described in this manual, **ElektraLite Dazer RGB** maybe damaged and the guarantee will be void

### 4. Installation

Please ensure that the **ElektraLite Dazer RGB** is hung using the appropriate "C" clamp or half cheeseboro. A safety chain or cable should also be used as a secondary point of holding the fixture in case the clamp comes loose. Never hang the fixture without a safety chain or cable. Make sure the Gel frame (Gel holder) is clipped into position correctly and cannot come loose.

If you are not qualified or have any doubts about hanging the **ElektraLite Dazer RGB** then do **NOT** hang it.

Do not clamp the safety cable to the U bracket or clamp. That is not a secondary safety point.

A secondary safety point is any point that will adequately hold the **ElektraLite Dazer RGB** if the "C" clamp or half cheeseboro fails. Then the safety cable would be the backup and stop the fixture from falling to the ground. So do **NOT** fix the safety cable to the same place that the "C" clamp is attached

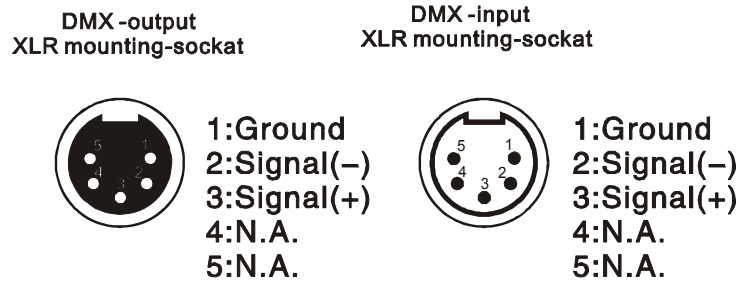
### 5. Grounding.

Always make sure that there is sufficient grounding (earth) for the fixture. This is not only imperative within the circuit that the fixture is being connected to, but also make sure there is sufficient grounding into the building. All fixtures regardless of manufacturer have a surge at initial "turn-on". Once initial "turn-on" is complete, the surge current (per fixture) will travel down the ground. While each 20 Amp circuit may have the correct size of ground wire, the ground input to the building and/or electrical panel may not be sufficient for the job. The **ElektraLite Dazer RGB** has a surge current over and above its operating current of approximately 1 Amp at 120 volts. As an example, say 100 fixtures are being installed. Therefore 100 AMPS (!!!!) will flow down the ground wire after the initial turn on of the fixtures. Lack of a sufficient ground cable into the building or on the individual circuits can cause severe damage to the fixture and this is **not** covered under the warranty. One further check : the ground to neutral voltage for each circuit. In a lot of buildings, voltages across these can damage fixtures or cause operational problems both for the fixture and DMX.

Please review these two important points with a qualified electrical contractor. If in any doubt have an independent qualified third party electrical contractor check the installation, **well before** commencing installation.

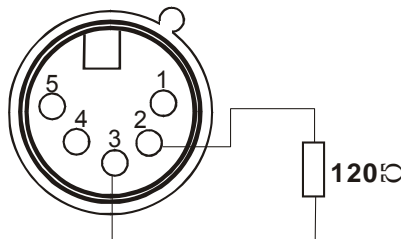
## 6. DMX-512 Control Connection

Connect an XLR cable to the female 5-pin XLR output of your **ElektraLite CP 20** or other DMX controller. The other end should be connected to the male 5-pin XLR input of the **ElektraLite LED Pro LineDazer RGB**. Then daisy-chain out of the first **ElektraLite Dazer RGB** into the next **ElektraLite Dazer RGB** or other dmx device. Never “Y” split the DMX connection. If you need more cable, then it should be two core, screened cable fitted with a 5 pin XLR input and output connector. Please refer to the diagram below



### DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically “noisy” environment, it is recommended that a DMX terminator is used. This helps prevent corruption of the digital control signal. The DMX terminator is simply a 5 pin XLR plug (male) with a 120  $\Omega$  resistor connected between pins 2 and 3. It is then plugged into the output XLR socket of the last **ElektraLite Dazer RGB** or other dmx device in the chain. Please see illustration below.



## 7. Menus in the fixture.

Root Menu	Sub Menu 1	Sub Menu 2
STAT (STATIC LOOK)	R(ED)	0-255
	G(REEN)	0-255
	B(LUE)	0-255
	S(STROBE)	0-255
AUTO (AUTOMATIC)	AT 01 THROUGH TO AT10	
	PR 01 THROUGH TO PR10	
RUN	DMX	
	SLAV(E)	
DMX	ASSIGN DMX CHANNEL	1-512
PERS (PERSONALITY)	STAG(E)	
	ARC1	
	AR1 D	
	AR1 S	
	HSV	
ID	ID 01 THROUGH 255	
EDIT	PR01	SC01 THROUGH TO SC99
(MAKING OWN AUTO	PR02	SC01 THROUGH TO SC99
SCENES)	PR03	SC01 THROUGH TO SC99
	PR04	SC01 THROUGH TO SC99
	PR05	SC01 THROUGH TO SC99
	PR06	SC01 THROUGH TO SC99
	PR07	SC01 THROUGH TO SC99
	PR08	SC01 THROUGH TO SC99
	PR09	SC01 THROUGH TO SC99
	PR10	SC01 THROUGH TO SC99
SET	UPLD	Password required See <b>16. KEY</b>
	DV	
	RGBW	
	DIM	
	ID	
	REST (RESET)	
CAL1	WT01 THROUGH TO WT11	
CAL2	RGB	
KEY	OFF	
	ON	

## 8. Static Look.

The **ElektraLite Dazer RGB** can be set to a single static look quickly.

Use the Menu button to get to STAT.

Press Enter.

The next screen will read R000. This is addressing the RED leds.

If Red is to be in the static look, then use the ↑ or ↓ to increase the value of the red.

Numbers are expressed in DMX values so 0 is no output and 255 is highest output.

Press Enter to save the value.

The screen will automatically advance to the next color Green.

If Green is to be in the static look, then use the ↑ or ↓ to crease the value of green.

Press Enter to save the value.

The screen will automatically advance to the next color Blue.

If Blue is to be in the static look, then use the ↑ or ↓ to crease the value of blue.

Press Enter to save the value.

The screen will automatically advance to the strobe function.

If the strobe function is to be in the static look, then use the ↑ or ↓ to crease the value of strobes flash rate.

Press Enter to save the value.

This is the last entry and the static look is complete. Pressing the Enter key just continues around if you need to make fine adjustments to the color of the static look.

Do not press MENU as this will get you out to the Root directory and out of the static look.

## 9. Auto Programs.

The **ElektraLite Dazer RGB** can be set to run some inbuilt programs.

There are two types of programs in the **ElektraLite Dazer RGB**

AT 01 to AT10 are fully pre-programmed and cannot be altered.

PR01 to PR10 are pre-programmed and can be edited

To run a program use the Menu button to get to AUTO.

Press ENTER.

Use the ↑ or ↓ key to get to the program. Press Enter.

The program will start running.

## 10. Run Mode.

Run allows the fixture to operate in either DMX or Slave operation.

Using the Menu button in the root menu go to RUN.

Press Enter to get to DMX mode. To get to SLAV mode use the ↑ or ↓

And press enter to save this setting.

## 11. DMX 512 Setting (address).

Sets up the address for the dmx.

Using the Menu button in the root menu go to **DMX**

Press Enter to get into DMX menu and the display will read the current dmx channel.

The display will read for example **d.001**

This means the fixture's current address is **001**

To change it, use the ↑ or ↓ buttons to get to the correct address.

Press Enter to save the dmx address. The display will momentarily display the word "OK" and then go back to the DMX menu.

To exit out to the root directory, use the menu button.

## 12. Fixture Personality.

There are several different choices on how the fixture will operate.

What these "Personalities" do in terms of their channel assignments is detailed in the tables on pages 12 and 13.

To change a Personality use the Menu button to get to **PERS**

Press Enter then using the ↑ or ↓ buttons go to the personality required.

Press Enter to save the Personality.

The one Personality not defined in the tables is **STAG**. **STAG** is short for STAGE and it is the full dmx number of channels as detailed in the DMX Channel Assignments shown on pages 12 and 13. The full dmx number of channels is 10.

## 13. ID Address.

An **ElektraLite Dazer RGB** can be addressed (controlled) through the dmx or instead it can have its own unique ID address.

There are a total of 255 different ID addresses from 1 to 255.

To set up the address for a fixture, use the Menu button in the root menu go to **ID**

Press Enter and then using the ↑ or ↓ buttons, to select the ID address.

Press Enter to save the address.

For the ID address to work you must chose a personality that uses the ID. For example STAG or AR1d.

This allows you to access the ID address system on channel 4.

Set the DMX address to d.001 for the fixture. So if ID address 123 is chosen then go to channel 4 on the lighting board and set the level at 123. You will then be controlling only fixture(s) with ID address 123.

## 14. Edit

The Edit function allows the 10 of the inbuilt programs to be edited and customized.

The programs that can be edited are PR01 through PR10.

Each of the programs can have up to 99 scenes (SC01-SC99).

Each scene has 5 components that can be edited on the fixture.

They are the Red leds, the Green leds, the Blue leds, the time the scene is "played" and whether the scene has a crossfade or just "snaps" in.

In the edit menu, the following is the flow diagram for programming.

EDIT→PR01→SC01→R001-R255 (Red)

↓

G000-G255 (Green)

↓

B000-B255 (Blue)

↓

T000-T255 (Time the scene is "active".  
001=1 second. 255=255 seconds).

↓

F000-F255 (Fade time for the scene.  
001=1 second. 255=255 seconds).

→ = Enter and ↓ = Enter in the flow diagram above.

When a component is chosen, for example the Red, the display will automatically show the current dmx value. The fixture will output the color that the RGB is set to for that scene.

Use the ↑ or ↓ buttons to change the value of the output for that color. Once the correct value is found for the Red (for example R165), pressing Enter automatically advances to the next component which is G (Green). Press enter if the Green dmx value is to remain the same or use the ↑ or ↓ buttons to change. This process is repeated for Blue, Time and Fade.

Pressing Menu at any time will exit out of the Edit function.

So if the Program is just 4 scenes long how do you stop the fixture from going ad nauseam through all 99 scenes? Once the last scene is programmed then the scene following must be adjusted so all components are at 0. So R must be at R000, G at G000, B at B000, T at T000 and finally F at F000.



## 15. SET. (Set has several Sub Menus which allow functions to be used).

1). **UPLD.** Custom programs can be uploaded from a master fixture into a slave fixture.

First:- connect the fixtures to power and have a dmx cable going from the Master (dmx out) to the Slave (dmx in).

Second:- using the Master fixture. Go through the Root Menu until **Set**. Press Enter and then use the ↑ or ↓ buttons to get to UPLD. Press Enter. The display will have 4 dots across the bottom. The password needs to be entered. The password is the following sequence using the ↑ and ↓ buttons.

↑ ↓ ↑ ↓ press Enter once complete. The upload will start immediately.

The upload average time for transmission is about 30 seconds.

While the upload is in progress the display will be flashing in YELLOW.

Once upload is complete and successful the word END will appear in green

If there is a problem, red will be the color noted.

Several fixtures maybe linked together in the master/slave scenario and programmed simultaneously.

### 2). **REST**

This resets all values to their default.

Go through the Root Menu until **Set**. Press Enter and then use the ↑ or ↓ buttons to get to REST. Press Enter. The display will have 4 dots across the bottom. The password needs to be entered. The password is the following sequence using the ↑ and ↓ buttons.

↑ ↓ ↑ ↓ press Enter once complete. The display will read OK followed by a return to the REST sub menu. The Menu button will need pressing to return to the Root Menu. Only once at the Root Menu will the dmx control function. Please note the Reset also takes the dmx address back to 001.

### 3). **ID.**

ID must be turned ON for it to work from the lighting controller.

So, if in STAG mode you want dmx channel 11 (the ID) to work, it must be turned on in this submenu.

Go through the Root Menu until **ID**. Press Enter and then use the ↑ or ↓ buttons to get to either OFF or ON. Once chosen, press Enter to save the setting and then Menu to exit out back to the Root Menu.

### 4). **DIM**

The Dim function allows different Dimmer curves to be chosen. There are 5 choices.

Choice 1 :- this is Dim off. The Dimmer curve is 0 which means any change in dimmer level is instantaneous.

Choice 2:- Dim 1. The dimmer curve has the shortest fade in and fade out time.

Choice 3:- Dim 2. The dimmer curve has the 2<sup>nd</sup> shortest fade in and fade out time.

Choice 4:- Dim 3. The dimmer curve has the 3<sup>rd</sup> shortest fade in and fade out time

Choice 5:- Dim 4. The dimmer curve has the longest fade in and the fade out time.

To access the DIM function go through the Root Menu until **DIM** is found. Press Enter and then use the ↑ or ↓ buttons to get to the DIM choice required.

Please note the DIM function under the Set menu in the fixture does not work when in the STAG mode.

When in STAG mode you can operate/access the DIM function directly through channel 9 on your lighting controller.

## 5).**RGBW**

The **RGBW** setting allows the ability to calibrate the white achieved when mixing RGB.

When **RGBW** is set to OFF, the output when Red, Green, and Blue is at maximum is 255 for all three colors. By definition this combination produces a white with a blue tinge which affects all other colors if cameras and other video equipment are "keyed" to this.

When **RGBW** is set to ON, the output can be white balanced to whatever looks good on camera, for example. It also serves to balance the white into a "warm" white which makes people look a lot better when they are in the light!

See Cal 2, for how to calibrate the white when the **RGBW** is turned ON.

To turn **RGBW** either OFF or ON, go through the Root Menu until **RGBW**. Press Enter and then use the ↑ or ↓ buttons to get to either OFF or ON. Once chosen, press Enter to save the setting and then Menu to exit out back to the Root Menu.

## 6). **DV**

The **DV** setting allows the ability of the leds to not flicker when using video camera.

The choices are NTSC or PAL. NTSC is the USA system.

To set the **DV** setting, go through the Root Menu until **DV**. Press Enter and then use the ↑ or ↓ buttons to get to either NTSC or PAL. Once chosen, press Enter to save the setting and the Menu to exit back to the Root Menu.

## 16. **KEY**

The Key function is an access password for the fixture. The **KEY** can be turned OFF or ON which then deactivates or activates the password.

To set the **KEY** go through the Root Menu until **KEY**, press Enter and use the ↑ or ↓ to set the **KEY** to either OFF or ON. If the **Key** is turned ON then a password is required to go into sensitive Menus and to change functions.

The password is ↑ ↓ ↑ ↓ (Up + Down + Up + Down)

## 17. **Glass front plate.**

Certain fixtures come with a glass plate. This glass plate fits onto the front of the leds. It slots in the gel frame holder and the clip latches the plate into position.



## 18. The Personalities of the Dazer RGB.

(for the personality **STAG** please refer to the DMX channel assignments on pages 12 & 13.  
**STAG** uses all 11 channels as shown in the dmx channel assignment table).

### ARC1

1	0-255	RED
2	0-255	GREEN
3	0-255	BLUE
4	0-50	Linear dimmer speed (DIM=OFF)
	51-100	nonlinear speed 1 (DIM1)
	101-150	nonlinear speed 2 (DIM2)
	151-200	nonlinear speed 3 (DIM3)
	201-255	nonlinear speed 4 (DIM4)
<b>AR1 D</b>		
1	0-255	MASTER DIMMER
2	0-255	RED
3	0-255	GREEN
4	0-255	BLUE
5	0-50	Linear dimmer speed (DIM=OFF)
	51-100	nonlinear speed 1 (DIM1)
	101-150	nonlinear speed 2 (DIM2)
	151-200	nonlinear speed 3 (DIM3)
	201-255	nonlinear speed 4 (DIM4)

### AR1 S

1	0-255	MASTER DIMMER
2	0-255	RED
3	0-255	GREEN
4	0-255	BLUE
5	0-255	STROBE
6	0-50	Linear dimmer speed (DIM=OFF)
	51-100	nonlinear speed 1 (DIM1)
	101-150	nonlinear speed 2 (DIM2)
	151-200	nonlinear speed 3 (DIM3)
	201-255	nonlinear speed 4 (DIM4)

### HSV

1	0-255	H hue
2	0-255	S saturation level
3	0-255	V brightness
4	0-50	Linear dimmer speed (DIM=OFF)
	51-100	nonlinear speed 1 (DIM1)
	101-150	nonlinear speed 2 (DIM2)
	151-200	nonlinear speed 3 (DIM3)
	201-255	nonlinear speed 4 (DIM4)

## 19. DMX Channel Assignments [STAG(E)].

1	Grand Master for RGB	0-255
2	<b>RED</b> Leds (or chase speed when anyone of PR01 thru PR10 in Ch07 is operational)	0-255
3	<b>GREEN</b> Leds (or cross fade time when anyone of PR01 thru PR10 in Ch07 is operational)	0-255
4	<b>Blue</b> Leds	0-255
5	No effect	0-009
	Snap to <b>Red 255</b>	010
	Crossfade <b>Red 255→000</b> <b>Green 000→255</b>	012-050
	Crossfade <b>Green 255→000</b> <b>Blue 000→255</b>	051-090
	Crossfade <b>Red 000→255</b> <b>Blue 255→000</b>	091-130
	Crossfade <b>Red 255→000</b> White 000→ 255	131-150
	Crossfade <b>Blue 000→255</b> White 255→ 000	151-170
	Snap to <b>Red 255</b> <b>Green 255</b> <b>Blue 255</b> White 255	171-200
	Snap to White 1 (approximately 3200°K)	201-205
	Snap to White 2 (approximately 3400°K)	206-210
	Snap to White 3 (approximately 4200°K)	211-215
	Snap to White 4 (approximately 4900°K)	216-220
	Snap to White 5 (approximately 5600°K)	221-225
	Snap to White 6 (approximately 5900°K)	226-230
	Snap to White 7 (approximately 6500°K)	231-235
	Snap to White 8 (approximately 7200°K)	236-240
	Snap to White 9 (approximately 8000°K)	241-245
	Snap to White 10 (approximately 8500°K)	246-250
	Snap to White 11 (approximately 10000°K)	251-255
6	Strobe effect	000-255
7	No effect/function	000-040
	AT 01 (Automatic program 01)	041-070
	AT 02 (Automatic program 02)	071-080
	AT 03 (Automatic program 03)	081-090
	AT 04 (Automatic program 04)	091-100
	AT 05 (Automatic program 05)	101-110
	AT 06 (Automatic program 06)	111-120
	AT 07 (Automatic program 07)	121-130
	AT 08 (Automatic program 08)	131-140
	AT 09 (Automatic program 09)	141-150
	AT 10 (Automatic program 10)	151-160
	PR01 (programmable Automatic program 01)	161-170
	PR02 (programmable Automatic program 02)	171-180
	PR03 (programmable Automatic program 03)	181-190

## 19. DMX Channel Assignments (Cont.)

7 (cont)	PR04 (Programmable Automatic program 04)	191-200
	PR05 (Programmable Automatic program 05)	201-210
	PR06 (Programmable Automatic program 06)	211-220
	PR07 (Programmable Automatic program 07)	221-230
	PR08 (Programmable Automatic program 08)	231-240
	PR09 (Programmable Automatic program 09)	241-250
	PR10 (Programmable Automatic program 09)	251-255
8	Chase speed for AT01 to AT10	000-255
9	Dim 00 (straight line dimmer)	000-009
	Dim 01 (dimmer curve 1. Shortest fade time)	010-069
	Dim 02 (dimmer curve 2. 2 <sup>nd</sup> Shortest fade time)	070-129
	Dim 03 (dimmer curve 3. 3 <sup>rd</sup> Shortest fade time)	130-189
	Dim 04 (dimmer curve 4. Longest fade time)	190-255
10	All fixtures are address	000
	ID 01 through 255 correspond to dmx addresses 001 through 255 respectively	001-255

## 20. Cleaning and maintenance.

Now ignoring maintenance and cleaning is very good way of creating problems "down the road" and many companies and installations do just that. However the net result is, no matter what the fixture, premature failure!

Changing the oil in a car most people do on a regular basis.

So with the fixtures, regular maintenance is an excellent practice, if you want the fixtures to last.

So what is the maintenance for the **ElektraLite Dazer RGB**?

### **Clean the fan! That's really it!**

Use a small vacuum cleaner and suck the dust and "fur balls" out.

Do not use a can of co<sup>2</sup>. That will just blast the dust and dirt everywhere!

The fan keeps the LEDs cool and keep the electronics cool too.

Without the fan working efficiently and dust free, the fixtures will fail and that will be a lot more costly than having someone vacuum the fixtures on a regular basis.

How often should the fan be cleaned? It depends on where the fixtures are; in a very dusty atmosphere once a week. So check the fan on a regular basis, it may not need cleaned every week but a quick "visual inspection" should be done.

The front plastic cover for the lenses should be cleaned so the light output is maintained. Use only a moist lint-free cloth.

Never use alcohol or solvents to clean the fixture.

## 21. Technical Specification.

- Operating voltage 100 – 250v
- Frequency 50 – 60 Hertz
- 36 x 5 watt leds
- 200 VI
- Fan cooled (with very low DB)
- 305mm x 276mm x 230mm
- 12" x 10.9" x 9.1"
- 8.5 kgs
- 19 pounds

**ElektraLite is a division of Group One. Group One and its divisions are constantly improving their product range and we reserve the right to make changes without prior notice.**

## Other Products.

ElektraLED has other great products that are manufactured under the ElektraLite product line.

Go check out the website at [www.myElektraLite.com](http://www.myElektraLite.com)

A preview of the products include:-



ElektraLite ML902



ElektraLite Stingray



ElektraLite DazerIP65 in white



ElektraLite SLA Retina